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THE ARCHITECT

VOLUME XII · NUMBER 2
AUGUST 1916

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Vol. XII. No. 2

THE ARCHITECT

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THE ARCHITECT PRESS

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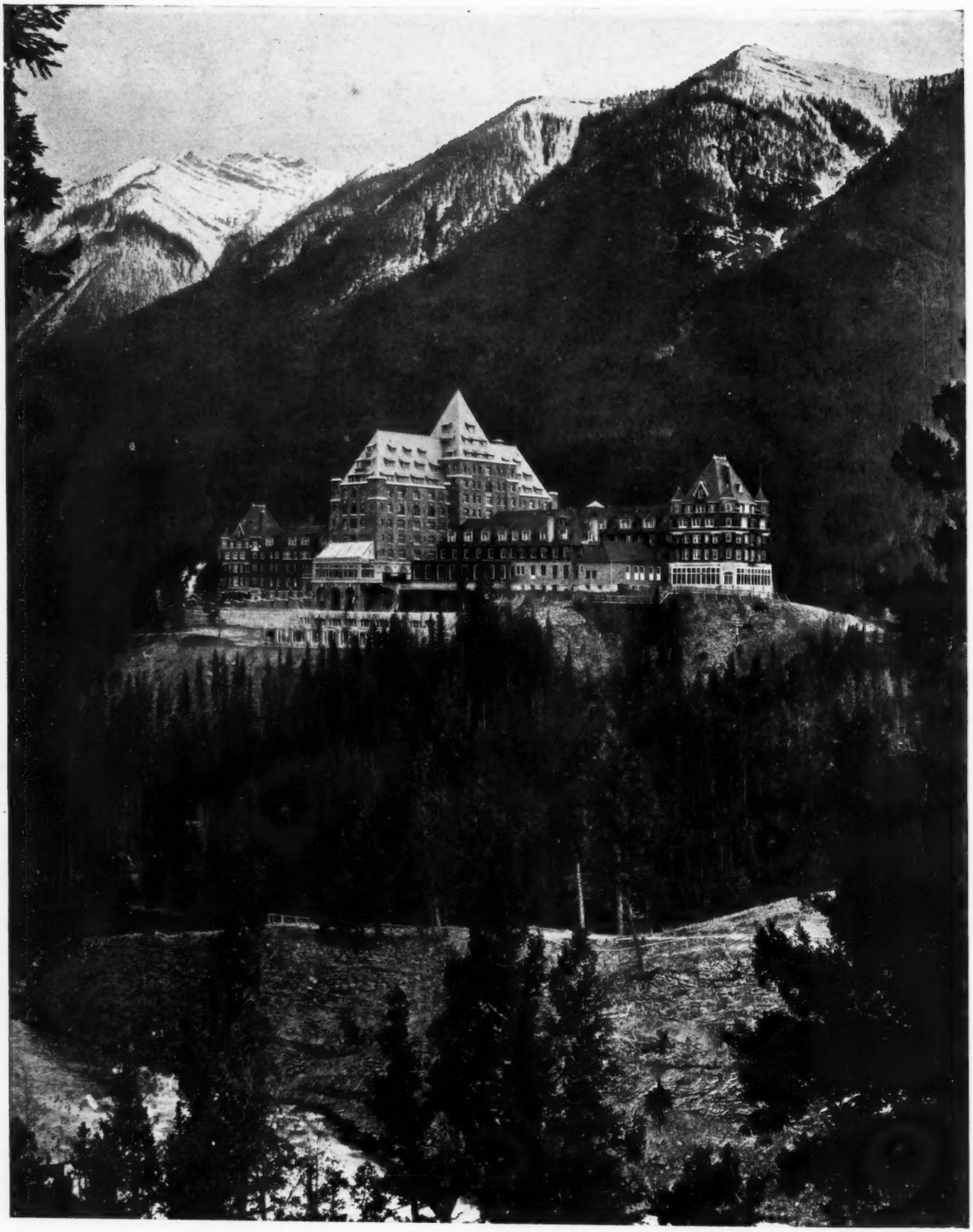
¶ The editor will be pleased to consider contributions of interest to the profession. When payment for same is desired, this fact should be stated. E. D. McDonald, Northwest Representative, 4100 Arcade Building, Seattle, Washington.



C. P. R. BANFF SPRINGS HOTEL, BANFF, ALTA.

THE ARCHITECT

VOL. XII. SAN FRANCISCO, AUGUST, 1916 NO. 2

The New C. P. R. Hotel Vancouver.

By FRANCIS S. SWALES, ARCHITECT. (Formerly Painter & Swales.)

THE Hotel Vancouver is one of the buildings that forms a link in the chain of about twenty large hotels extending between the Atlantic and Pacific Oceans, owned and operated by the Canadian Pacific Railway Company.

The Canadian Pacific is a nation-building corporation, with a scope of operations much broader than that of a usual railway company. Second only to the Canadian Government in its land holdings, owning also great fleets of steamships on both the Atlantic and Pacific Oceans, and in the coastal transport, it provides the most rapid, comfortable and luxurious travel between Europe and Asia, via the "Trans-Atlantic, Trans-Canada and Trans-Pacific Route." It not only provides transportation and operates hotels, but does work of colonization, land settlement and development on an unparalleled scale. It possesses the greatest irrigation system in the world. The C. P. R. irrigated lands in the dry belt of Alberta alone are greater in area than all the irrigated tracts in the United States taken together. It has developed districts as large as some of the American States, whole cities and such budding towns as Bassano—the place that brags it is "The best in the West by a Dam Site" — the dam was built by the C. P. R. It sells lands for farming purposes that require no fertilizer, at prices that are less than the annual cost of nitrates per unit area on neighboring lands on the American side of the boundary line — which helps to explain how it happens that five thousand Americans are at present among the "Canadian" troops for overseas service.

Vancouver is the terminal city of the railway and the principal port on the Pacific of the C. P. R., and therefore is a point at which travelers to and from the Orient and Australasia transfer between train and ship. It is the metropolis of the Province of British Columbia, the market city of the great fruit-raising areas in its valleys, and the center of the richest mining and timber lands in the world. Copper, iron, gold, silver, zinc and other metals, also coal, are mined extensively in this vicinity. Large oil centers, enormous pulp and paper works; cedar, Douglas fir and maple lumbering; shipbuilding, canning and catching the great drives of salmon in the inlets, bays and rivers around the two peninsulas on which the city is built, are the large staple industries on which the permanence of the city is founded. Six other railway companies are now building lines into Vancouver, and two are erecting large terminal stations; but it was the C. P. R. that built this city.

The country around and about Vancouver is "the paradise of the man with rod or gun." Moose, caribou, wapiti, bear, mountain sheep and goats are found in abundance; timber wolves and mountain lions are shot from time to time, and small game, fur-bearing animals and birds, in great variety, are here in apparently inexhaustible quantity.

The climate, along the coast, compares favorably with that of the Mediterranean coast of France in winter, or the Italian lakes in summer.

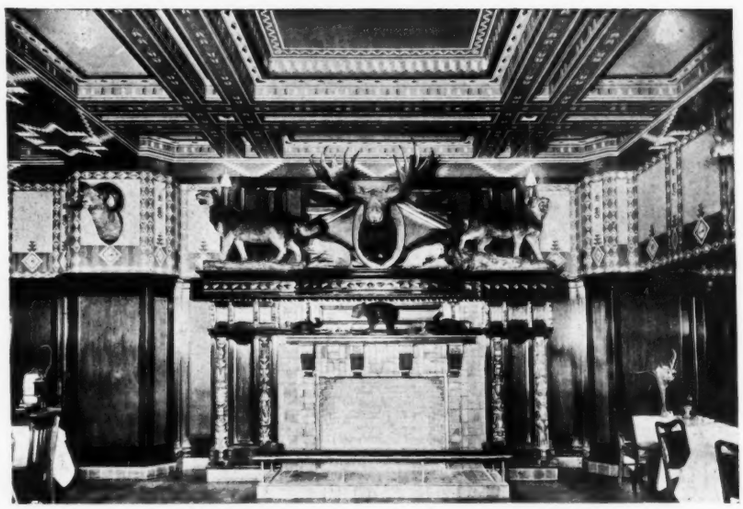
FINAL STUDY FOR MAIN ENTRANCE CORRIDOR
C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.
FRANCIS S. SWALES, ARCHITECT

Detail in Lobby, C. P. R. Hotel Vancouver; Francis S. Swales, Architect

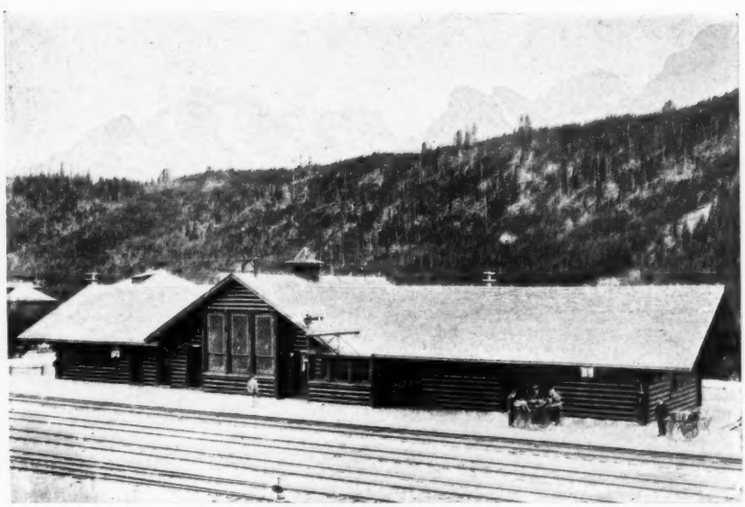
To the sightseer, the landscape offers wonderful charm. The peninsulas forming Vancouver rise in gentle slopes to a couple of hundred feet above sea level. Beyond Burrard Inlet to the north and the Fraser River to the south rises a horseshoe-form range of high mountains on a radius of perhaps twenty miles. Those to the north are but four or five miles distant, while Mount Baker, visible from the high places, rises more than twelve thousand feet, like a vast pile of snow in the sunlight, nearly forty miles to the south—a wonderful spectacle.

There is a view over Lake Washington towards Mount Rainier, from Seattle, that is as fine as the view of Mount Baker from the roof garden of the Hotel Vancouver; there are fjords along the west coast of Norway that are equal to the impressive passes of Howe Sound—a waterway running north from Vancouver. The city's park, with its great Douglas firs and cedars, possesses trees that are equaled by giant redwoods in California. The Bay of Naples and the Golden Gate of San Francisco, as seen from the high parts of Piedmont, are each in its own way as alluring as English Bay and the Gate of the Lions at Vancouver. The Lions themselves are marvels of natural beauty. They are no mere mountain shadows or outlines which only the habituated can discover, but clear-cut, well-defined, sculptors' lions. They are not dead like Thorwaldsen's lion cut in the rock over the pool at Lucerne, nor are they "woolly" like Landseer's animals at the base of Nelson's Monument at London, but are such as Barye, Cain or Bartholdi might have cut, had the span of life and the opportunity been sufficiently great to one of them. Bartholdi's great lion, cut in the red sandstone blocks built against the gray cliff over the Caserness of Belfort, has the same majestic poise as one of these "mountain-lions," which might almost pass for a roughing-out for a colossal enlargement of that original.

The color of Naples and Venice—though I think Genoa is really better than either—has each its own magnificence; of the richness and warmth of a Titian painting. The color

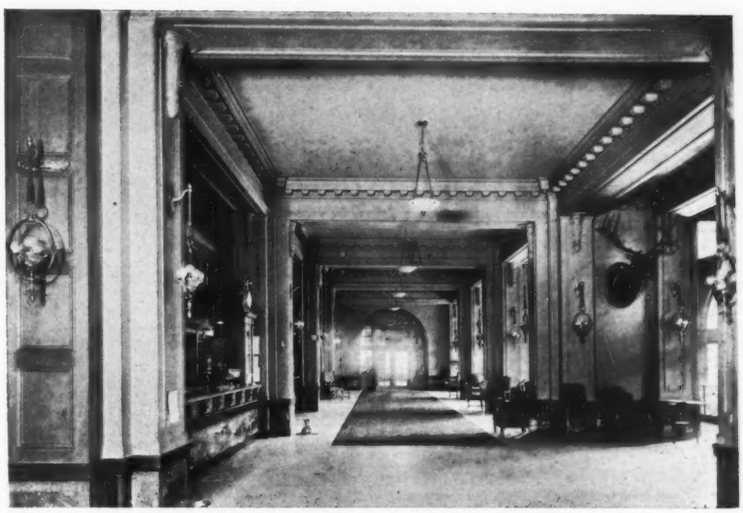


Typical Indian Grill in Colors, C. P. R. Hotel Vancouver

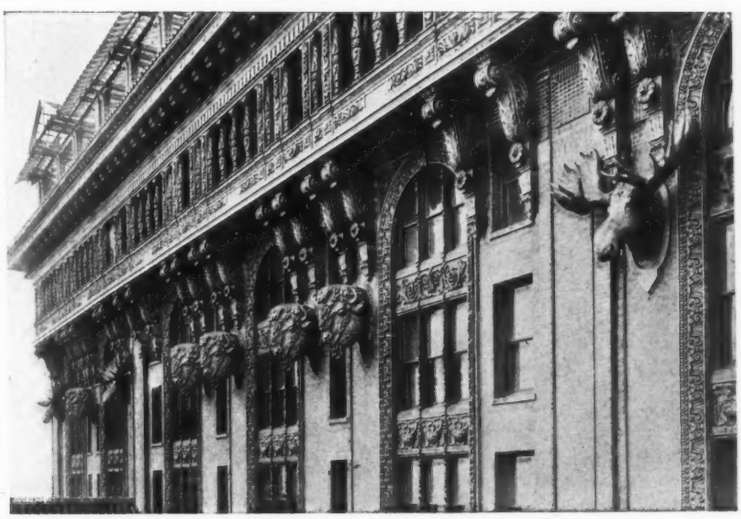


C. P. R. Station, Laggan, Alt.

Cashier's Office, C. P. R. Hotel Vancouver; Francis S. Swales, Architect



View in Lobby, C. P. R. Hotel Vancouver



Exterior Upper Stories, C. P. R. Hotel Vancouver

of the mountains around Vancouver is the blue, such as Dürer painted.

Of the city proper, its well-paved and well-lighted streets place it in a class by itself as far as Canada is concerned, and only the great cities of New York, San Francisco and Detroit, of American cities, possess the same cleanly, metropolitan aspect. Of the residential districts, Grosse Point Farms, just out of Detroit, overlooking the flats of the river, offers something equal in charm and seclusion to the homes around Point Grey—that look out upon the Gulf of Georgia.

The admirable streets of quiet homes, with sidewalks inlaid as it were in lawns and roadways overhung with trees, in Detroit, such as Ferry, Palmer and Rowena Streets, are perhaps as delightful as Burnaby, Harwood and Broughton Streets, Vancouver; but the Detroit streets are flat—the Vancouver streets are gently sloping, and views of the sea and mountains may be had from most of the houses. Roses bloomed out of doors in my garden, two years out of three, from March until Christmas — that does not occur in Detroit!

The populace, though fairly cosmopolitan, is well mixed with picturesque types, pioneer in instinct and development.

Architecture, painting, sculpture, music, are regarded curiously rather than with any sincere interest; the arts, far as they have progressed, cannot be said to flourish here more than in any other part of Canada. Europeans, Americans from the Eastern States, and "globe-trotters" inquire about such things, and they, therefore, are commercial assets.

Thirty years ago the "city" was wiped out by a fire, which doubtless did more good than harm by causing some thought to be turned to fire risks when rebuilding, where wooden structures are the rule. About that time the C. P. R. built the first hotel at the corner of Granville and Georgia Streets; a few years later an extension was built on the adjoining property on Granville Street. About ten years ago a "new" five-story building was erected on the other property adjoining the original building, at the corner of Georgia

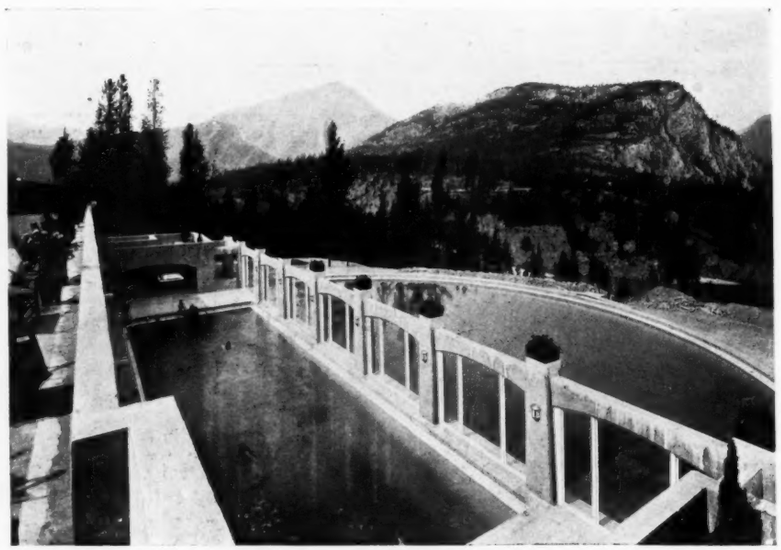
and Howe Streets, and a plan for the ultimate extension of the design around the whole perimeter of the lot was made by the architect, Mr. Rattenbury. The buildings erected were of brick walls, but interior construction of wood. The scheme of extensions was abandoned. Six years ago, Mr. Painter, then official architect for the C. P. R., designed an extension along Howe Street to the building by Mr. Rattenbury. It followed the same general architectural treatment, but was built of fire-resisting, reinforced-concrete construction. It was built one story higher than the older building, and the top story is of bright green, glazed terra cotta. The lower stories of both buildings are of yellowish-brown brick, with "chocolate" terra cotta "trimmings." These two buildings were required to remain and be incorporated with the new buildings in a program of operations which began in the early part of 1911 and was completed in July, 1916.

It was the first idea of the company to extend the design of the Howe Street wing, six stories high, around the perimeter of the lot. Parallel with the old Granville Street wing, and Howe Street wing, and midway between them, Mr. Painter had proposed a high wing, extending from the northern to southern boundary of the property.

In 1911 a partnership was formed between Mr. Painter and the writer. Mr. Painter took over the executive work of the firm, and it fell to the writer to perform the designing of the ultimate scheme of extensions. In 1913, the whole work on this building was taken over by the writer.

The site is on sloping land at the top of a low hill, which forms the highest ground in the business section of the city. The available portions of the site measure 224 feet on Granville Street and 216 feet on Georgia Street. The floor levels of the two buildings that were to remain; the construction of the wing which had just been completed by Mr. Painter; the necessity of keeping all the old buildings in operation during the new construction; the existence of the old power house and kitchens in the court behind the Howe Street wings; the only available access for delivery carts to basements at the southern side; the adjoining theater and apartment houses, whose light and power supply is acquired from the hotel's plant; a few fixed and many constantly changing ideas on the part of the head of the company's hotel system; and the existence of a building by-law in process of revision, were the principal general conditions to which the planning was required to conform. The building laws allow one hundred and twenty feet of height for the main area of any site, subject to conditions of light areas and number of stairs and fire escapes. On sites of fifteen thousand square feet or more, one-third of the area may be extended to the height of two hundred feet. It was ascertained that the walls and foundations of the existing building at the corner of Howe Street could be carried two stories higher, which was taken into account as a possible contingency. The two pavilions facing Granville Street were, therefore, designed to reach the same height, and the face of the corner pavilion kept to the same plane on Georgia Street as that of the existing building. With the object of securing additional light and air, also the maximum number of outside rooms with the least possible disturbance from all disagreeable street noises, the main body of the new building, above the ground story, was designed on an H plan, set back from the building face of substructure, twenty feet on the Georgia Street front and about fifty feet on the Granville front. The cross wing of the H was carried to the height limit prescribed by the by-laws. The fire escapes were arranged to avoid the usual unsightly iron devices, within towers so placed as to do the least damage to light to guest rooms and leave the maximum floor space available for room purposes. This plan was convenient for building operations, as the central block could be erected, leaving the old buildings intact until the main new portion was ready for guests.

The existence of a three-story arched window motif with a one-story frieze above in the Howe Street wings suggested its adoption for the body of the new buildings. It does away with the honeycomb monotony that would result with a building of such large masses, and it provided a means of supplying nearly all of the bedrooms with a triple window. The frieze story repeated between the three-story motifs accentuates the scale and provides a vehicle to carry horizontal lines around the building at convenient levels for the general architectural effect. The arcade at the second story was introduced to increase the depth of, and give continuity to, the base, which constitutes a kind of socket from which the main masses of the building rise. The corner pilasters of the highest portion of buildings cover the panels of wind bracing in the structural steel frame and are repeated on the lower wings to unify the effect of vertical ties. The projecting top story cantilevered over the tops of columns reduces bending stresses in the columns and permits a lighter treatment of the cornice proper than would otherwise be required, which also assisted in reaching a balance of scale as between the different masses of the whole structure. The above reasoning determined the general plan and exterior composition. The general arrangement is shown by the plans illustrated.

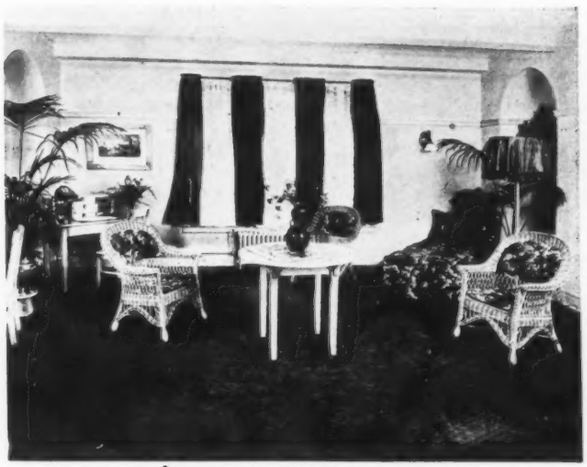


Swimming Pool, Banff Springs Hotel, Banff

The location and levels of existing dining rooms in the Howe Street wing determined those of the new kitchen, private dining rooms and grill room, and of the tea room in the western court. All that portion of the building east of the *degagement*, containing the ball room, with billiard room below, grill, bar, etc., followed as an extension to the main high structure, which was required to be built and practically completed before the extension could be begun.

The grill room is approximately level with the kitchen, and the kitchen is four feet below the level of the main existing dining room. The table d'hote dining room is nine feet above the kitchen, as is also the ball room or banquet hall. Wide stairs, partitioned on the center to prevent collisions between waiters moving in opposite directions, with easy rise, form the main service routes to the principal public rooms. The galleries, tea room and private dining rooms are provided

Guest Room, Hotel Vancouver



Guest Room, Hotel Vancouver

with serving rooms with dumb-waiters, equipped with hot plate, bain-mari and refrigerator; also all pantry equipment, telephones, telautograph and other modern conveniences.

The whole of the kitchen departments are on one level. The stores are in the sub-basement adjacent to the delivery court and receiving room. Help's dining and rest rooms are in an adjoining building. Maids' dormitories, housekeeper's suite, accountants' offices, valet, linen-distributing room, etc., are in the first or mezzanine story, overlooking the courts.

Palliser Hotel, Calgary

The lower ground floor is arranged as a social center, particularly to supply entertaining facilities to commercial travelers. The grill room, bar, billiard room, barber shop, lounging lobby, lavatories and sample rooms are arranged *en suite*. Two entrances from Granville Street and an entrance for sample trunks from Howe Street are provided.

The grill room is the popular lunch and supper room used by local people and for informal dinners by guests. The "grill" was, however, at the instance of the management, removed to the kitchen and a fireplace and mantel substituted. The floors are of light brown and gray Rublino—a mixture of rubber and linoleum—mosaic tiling. The base, hearth and facings are of brown local quarry tiles. The walls are paneled with rotary cut British Columbia Douglas fir, stained brown, with stiles, rails and mouldings of British Columbia maple, stained black and rubbed. The canvased frieze and ceiling of plaster panels are painted with decorations based on Indian blanket designs, the colors being founded on two particularly fine Hopi and Bayeta blankets. The lighting is intended to be indirect, with the reflectors concealed within baskets made by local Indians. Totem poles and trophies of the chase are provided as movable decorations.

The floor of the playing space of the billiard room is five feet six inches below the level of the grill room, passage and lounging lobby; surrounding the playing space, raised eighteen inches above it, is a platform wide enough for settees and chairs and a passage behind them, provided for onlookers. Curtain walls, seven feet high with open arches above same, afford elbow rest and a full view of the tables from the passage and lounging lobby over the heads of onlookers, seated or standing on the platform. These curtain walls are flush paneled in tiling of which the panels are made of common kiln-run,

Bed Room, Hotel Vancouver

Bed Room, Hotel Vancouver

two-by-four, red "garden-walk" tiles, one-quarter inch thick; the base, stiles, rails and mouldings are of bull-nosed brown quarries, one inch thick. In place of tile panels, the upper part of the dado is filled, between the tile rails and stiles, with Van Dyke Brown enlargements of photographs of the very beautiful scenery along the route of the Canadian Pacific Railway, the publicity branch of which supplied its splendid collection of photos, from which the writer was enabled to select a series of good decorative panels. They have been arranged so that by commencing at one corner and following the perimeter of the room, one "travels" eastward, or westward, to the most interesting points along the route between the Pacific Coast and Gulf of St. Lawrence. The frames of the pictures are of Circassian walnut, four inches wide, with a half-inch gold slip between picture and frame and an outer moulding, one and one-half inches wide, of ebony. The ceilings are of plaster, paneled and painted, with decorations in the primary colors. The floor is old gold and blue Rublino tiling, with curbs and steps of quarry tile. Two pair of doors lead from the platform of the billiard room, and two other entrances, at the ends, from the street lead to the bar room. This room is one hundred and twenty feet long by twenty feet wide. The ends are semi-circular in plan. The ceiling is of semi-elliptical cross-vaulting in plaster, forming half domes at the ends. The room is finished to a height of eight feet in Circassian walnut flush, matched-grained veneers. The matching is made on a line on the horizontal center of the panels of the recesses of the back bar, about five feet six inches from the floor, which is carried all around the room. A log with an exceptionally beautiful burl was found, from which all the face veneer was cut, and this, matched right and left in double widths of about eighteen inches, and top and bottom along the horizontal line, forms a rose pattern which is a sufficient decoration and thought by the writer that no carving, paneling or other decorations could improve. The bar itself is one hundred feet long. All fittings and hardware, the work-board of five stations and foot-rail are of nickel silver. The bar top is oil-treated mahogany, the whole top being of but three pieces. Broom, mop and pail cupboards are formed in the pilasters and telephone alcoves in the spaces between the square constructional and rounded finish of corners. Fresh air supply is brought in at the sides of telephone alcoves and vitiated air taken through exhausts in ceiling. The ceiling is a light brown-gray. A beautifully composed and richly colored decorative picture in the central lunette over the back bar, painted by Marion Powers Kirkpatrick, of Boston, is comparable with the work of Frank Braugwyn and gives the necessary glowing note of color that prevents what might otherwise be a somber effect. The windows in the other lunettes are glazed with opalescent glass in simple panes. The flooring is of gray-gold and blue Rublino mosaic. The base is of black and gold polished marble. The entrances from the street are lined with Pocahontas veined Alabama marble, with base and stair strings of Belgian black and treads and risers of gray Tennessee marble. The balustrades are of cast bronze and the doors to the street are of kalameined bronze.

Place Viger Hotel, Montreal

Kootenay Lake Hotel, Balfour, B. C.

The floors and wall lining of lounging lobby, and lavatories and partitions in same, also the stairs to main floor, are of Tennessee marble. The floors are of marble slabs set in strips of brass. The barber shop is finished in white Alabama marble throughout.

On the main or upper ground floor, the lobbies, writing rooms and main entrance corridor—which forms the *degagement* for the whole building—have floors of terrazzo divided into squares of approximately five feet, by triple rows of cube mosaic, which also forms an inner border around them. A border of marble follows the lines and breaks of the dadoes, stairs, etc.

Sicamous Hotel

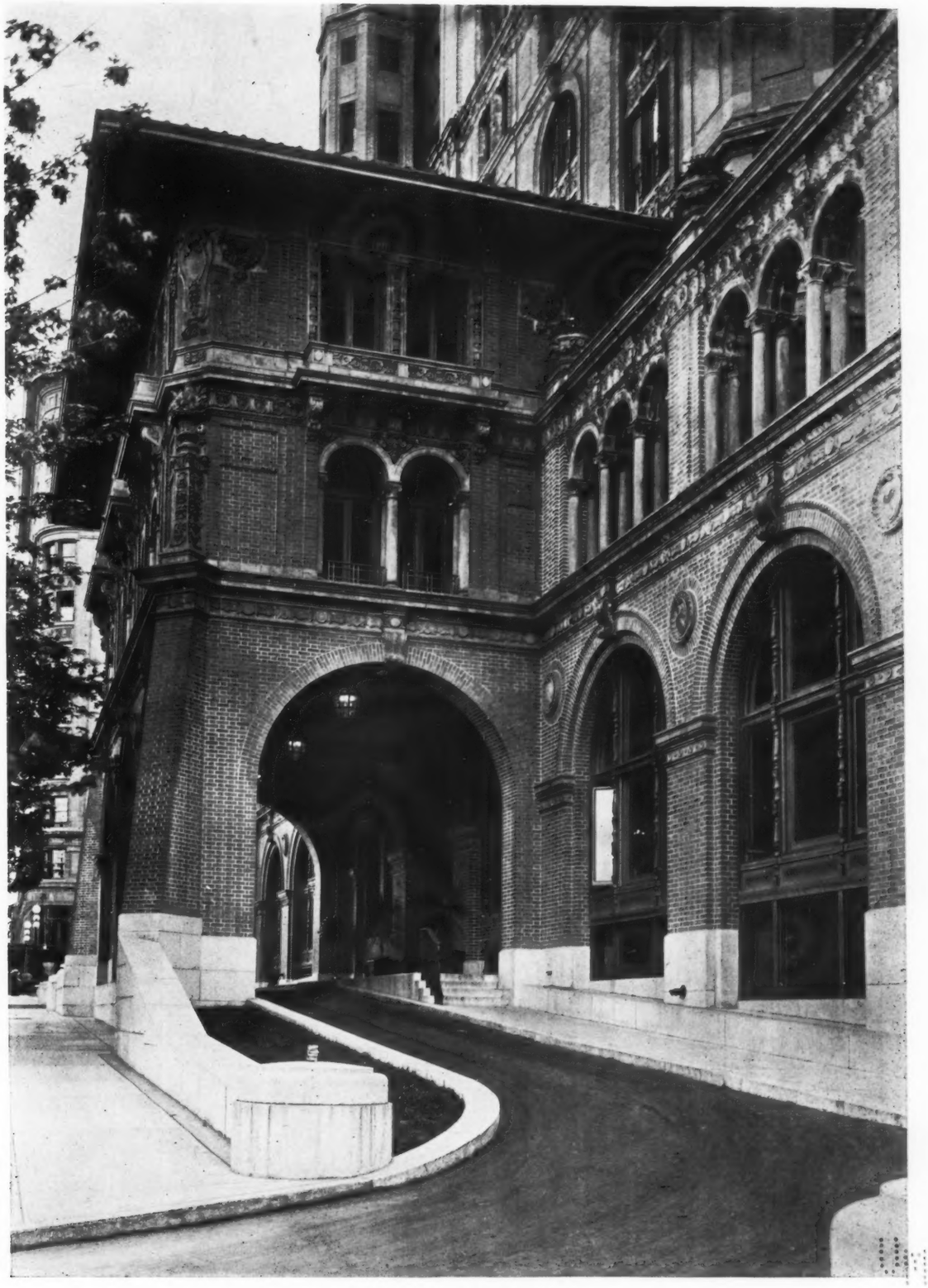
(Continued on page 121)

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.
FRANCIS S. SWALES, ARCHITECT

GRANVILLE STREET FRONT

GEORGIA STREET FRONT

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.
FRANCIS S. SWALES, ARCHITECT



DETAIL GEORGIA STREET ENTRANCE

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.

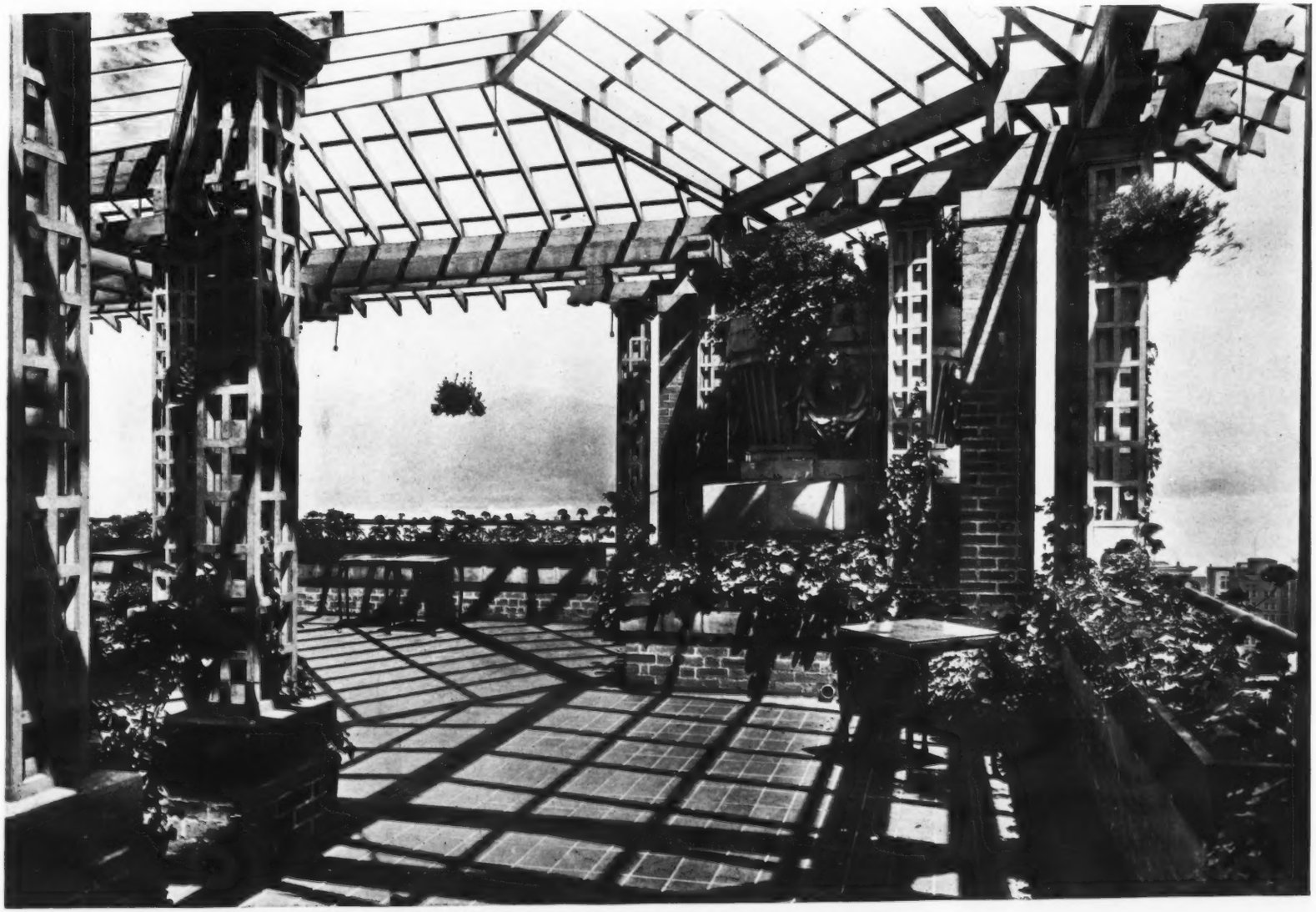
FRANCIS S. SWALES, ARCHITECT

VIEW OF UPPER STORIES AND TERRACED ROOF

ENTRANCE DETAIL ON GEORGIA STREET

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.

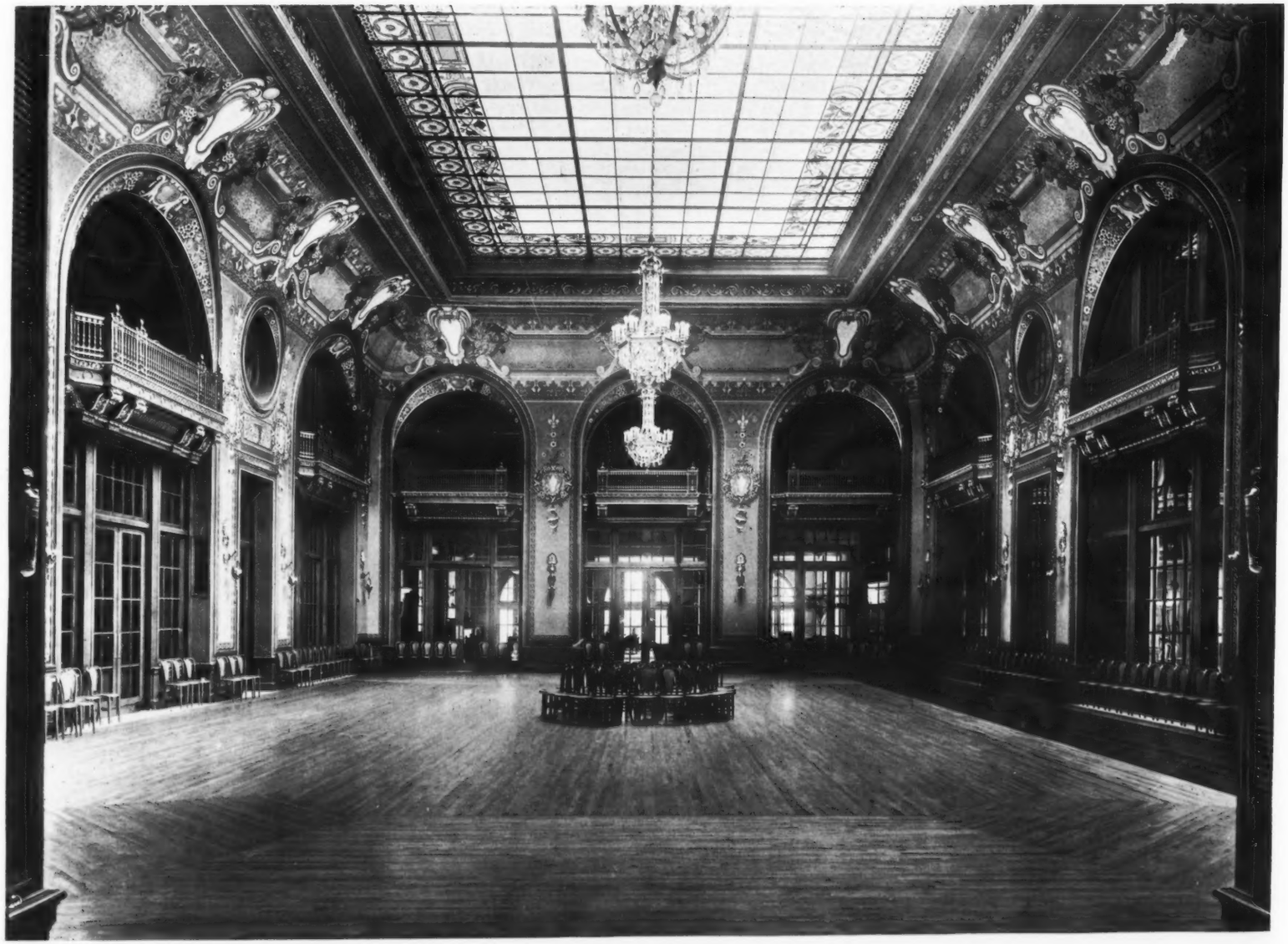
FRANCIS S. SWALES, ARCHITECT



DETAIL TERRACED ROOF GARDEN

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.

FRANCIS S. SWALES, ARCHITECT



BALL ROOM

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.

FRANCIS S. SWALES, ARCHITECT

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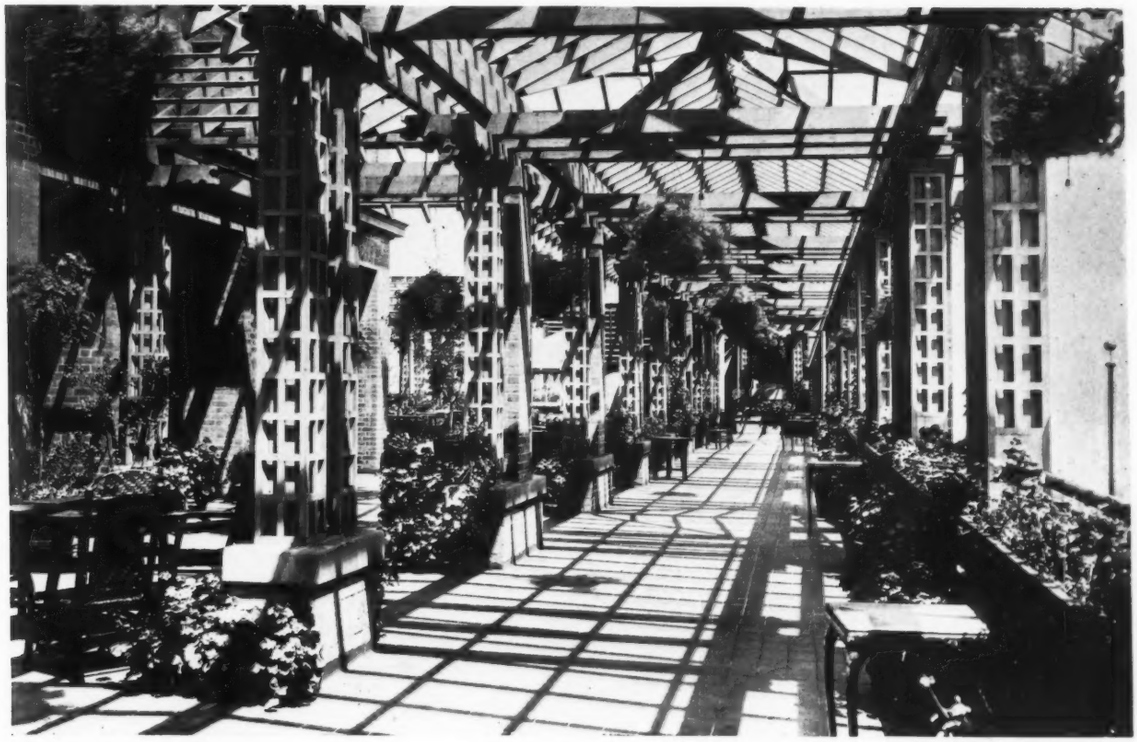


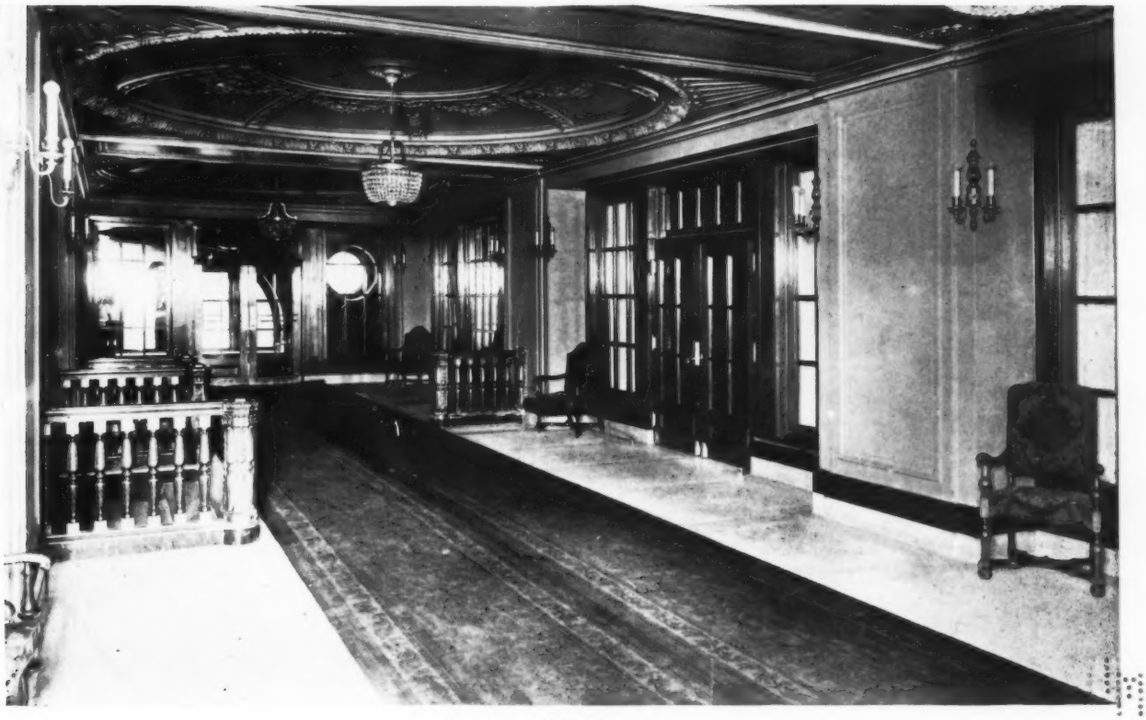
TERRACED WALK ON ROOF

VIEW IN BAR

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.

FRANCIS S. SWALES, ARCHITECT

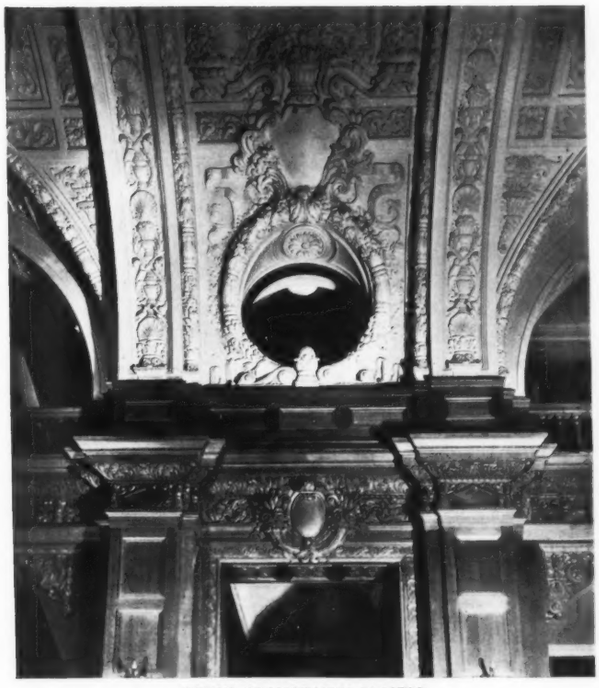
GENERAL VIEW TEA ROOM



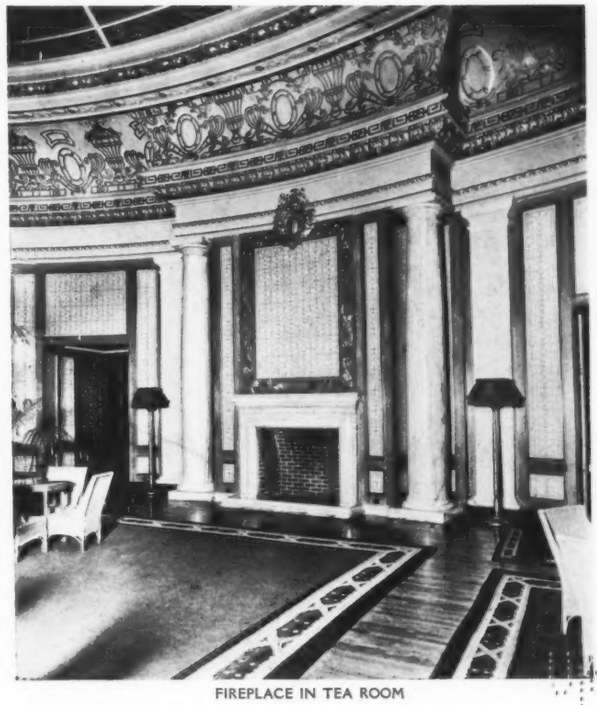
CORRIDOR

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.
FRANCIS S. SWALES, ARCHITECT

DETAIL OF GALLERY AND ARCHED CEILING



DETAIL ORNAMENTAL PLASTER

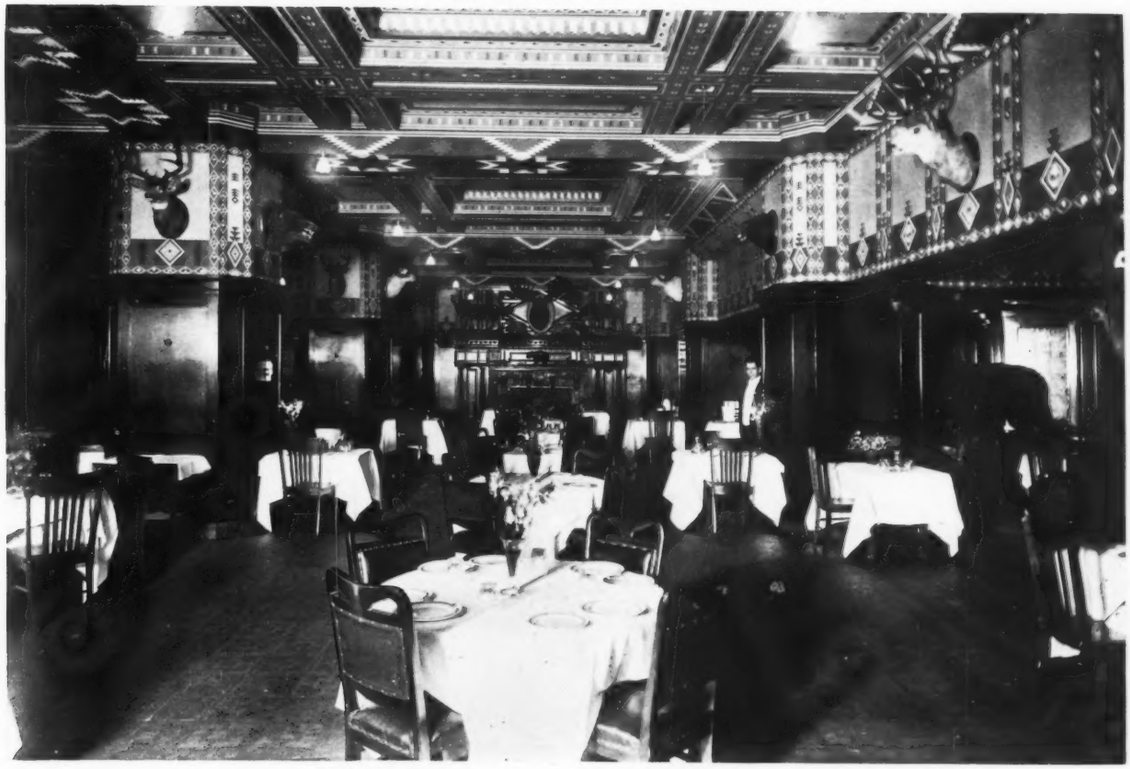


FIREPLACE IN TEA ROOM

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.

FRANCIS S. SWALES, ARCHITECT

PASSING AND LOUNGING LOBBY, LOWER GROUND FLOOR



INDIAN GRILL, TYPICAL OF ALASKAN TERRITORY, FINISHED IN COLORS

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.

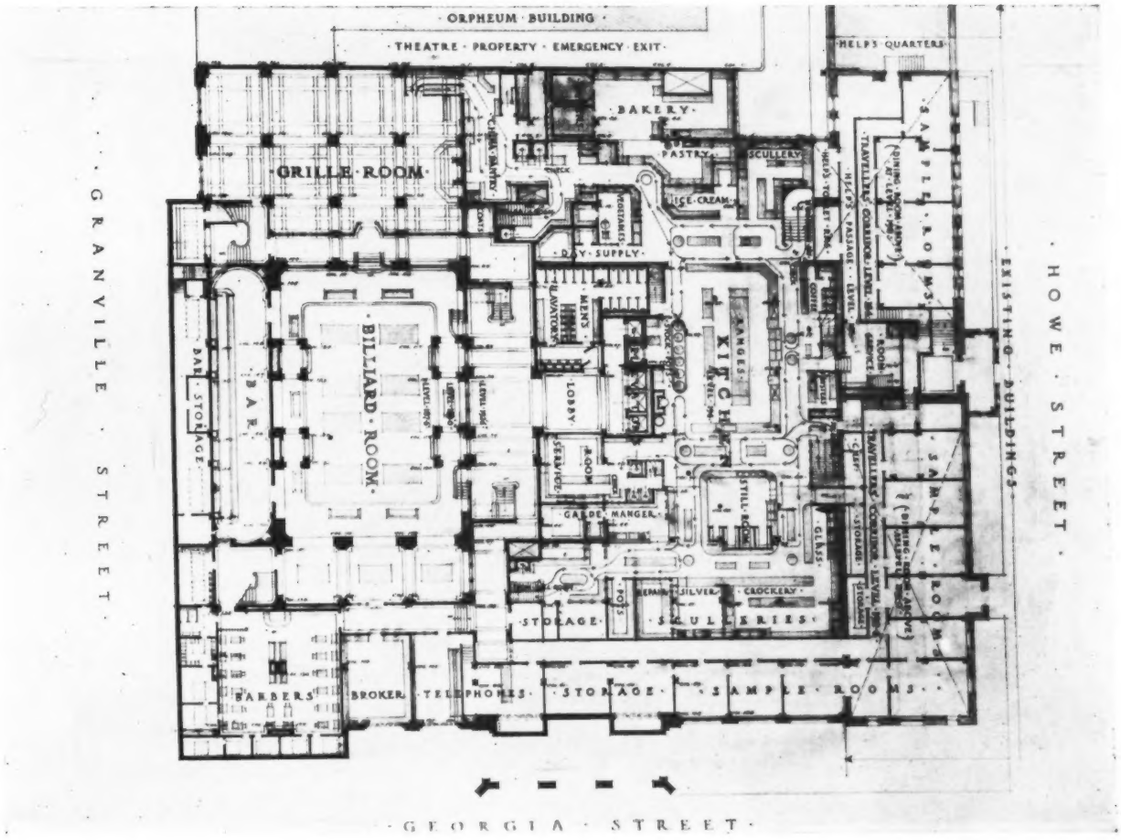
FRANCIS S. SWALES, ARCHITECT

LOUNGING PLATFORM OVERLOOKING BILLIARD ROOM

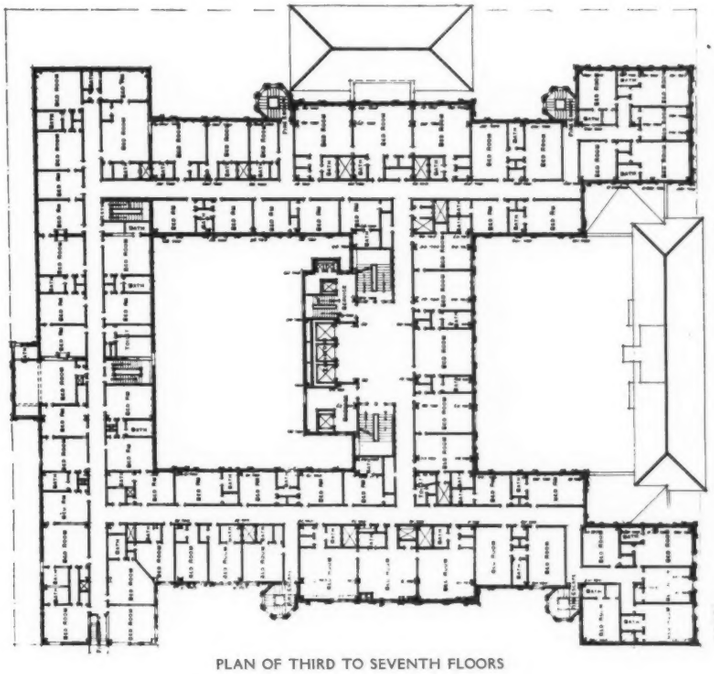
STAIRWAY TO LOWER GROUND FLOOR

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.

FRANCIS S. SWALES, ARCHITECT



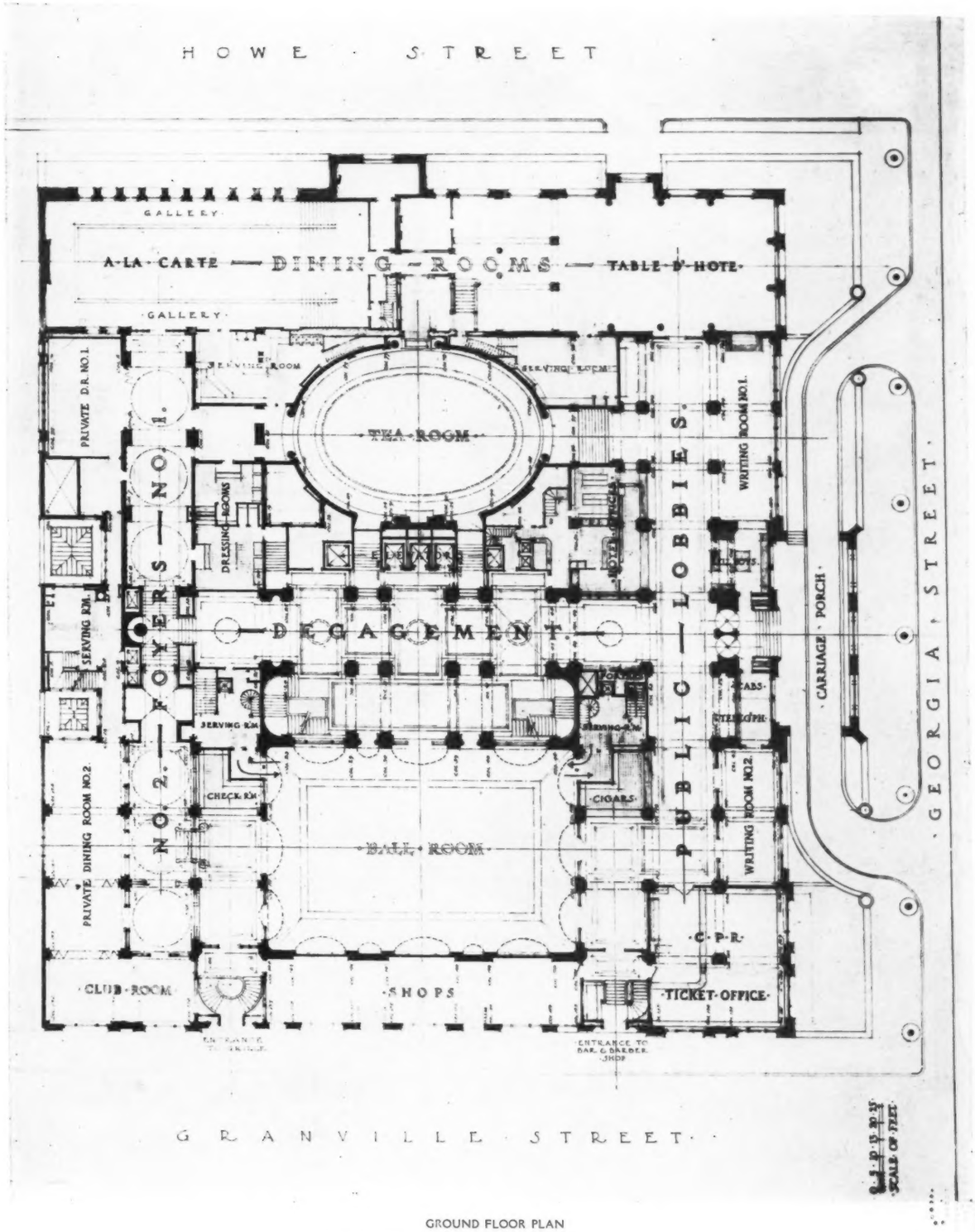
LOWER GROUND PLAN



PLAN OF THIRD TO SEVENTH FLOORS

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.

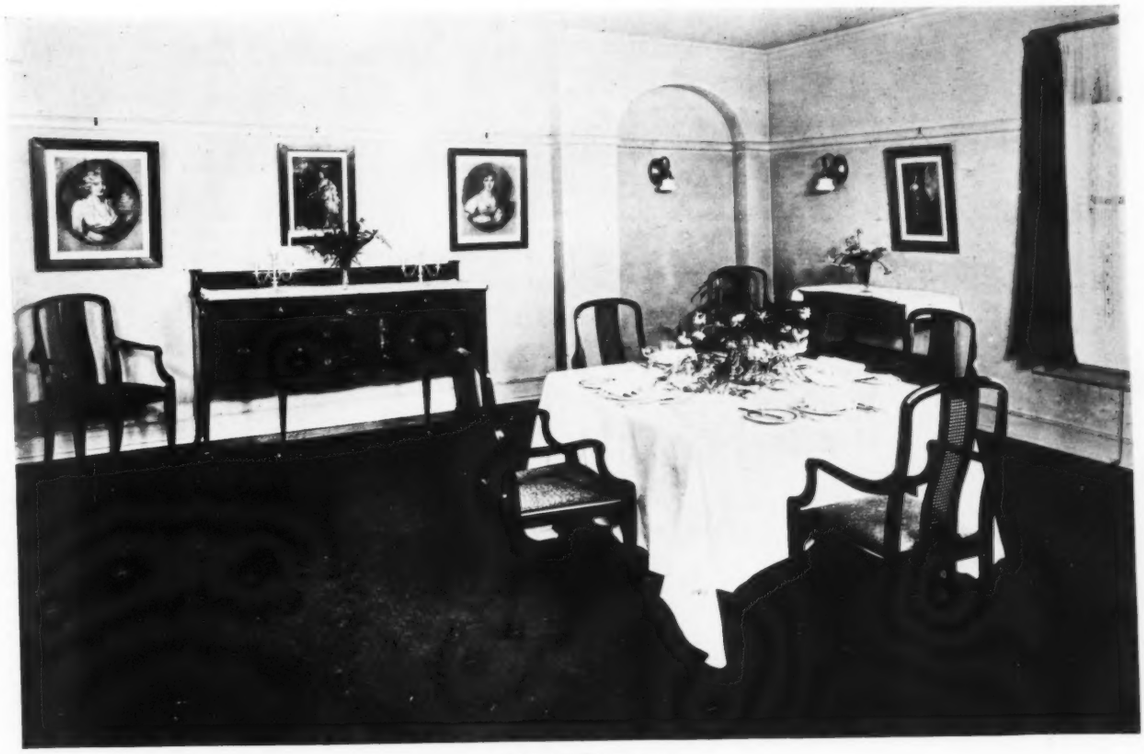
FRANCIS S. SWALES, ARCHITECT



GROUND FLOOR PLAN

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.

FRANCIS S. SWALES, ARCHITECT



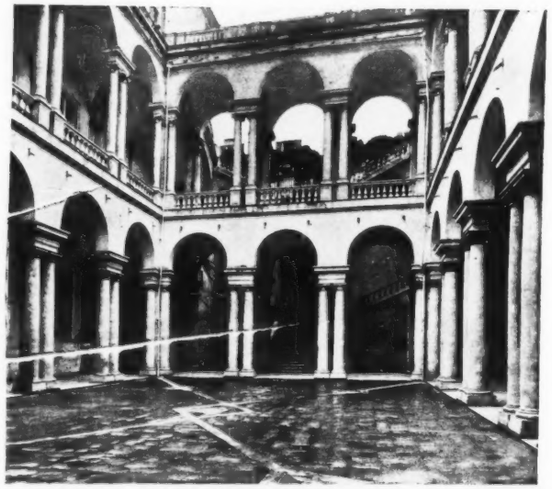
PRIVATE DINING ROOM

WEST VIEW IN LOBBY

C. P. R. HOTEL VANCOUVER, VANCOUVER, B. C.
FRANCIS S. SWALES, ARCHITECT

REVIEW OF OUR FOREIGN CONTEMPORARIES.

"THE ARCHITECTURAL REVIEW," London.



Cortile, Universita, Genoa. Rocco Largo, Architect

Alexandrinsky Theatre, Petrograd. Carlo Rossi, Architect

S. Maria Della Salute and the Dogana, Venice. Baldassare Longhena, Architect

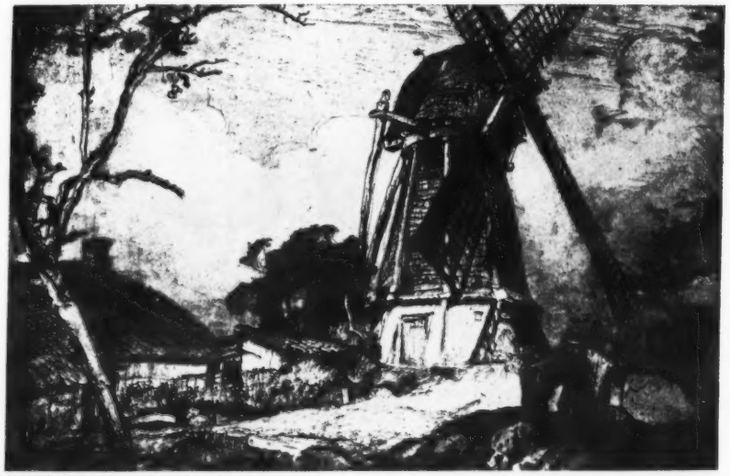
Palazzo Rezzonico, Venice. Baldassare Longhena, Architect

Palazzo Pesaro, Venice. Baldassare Longhena, Architect

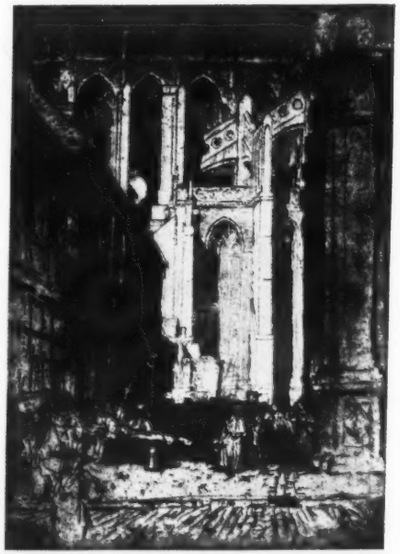
REVIEW OF OUR FOREIGN CONTEMPORARIES.

"THE ARCHITECTURAL REVIEW," London.

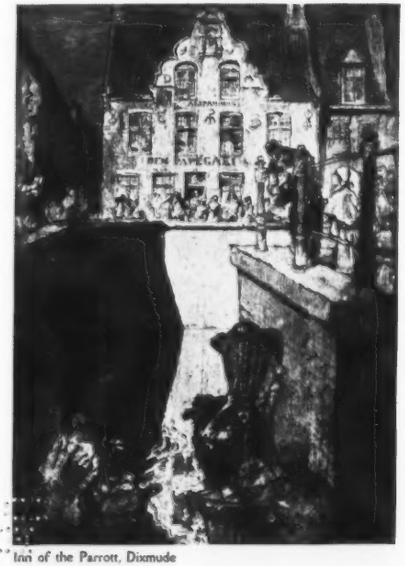
Altar, Collegiate Church, St. Waudru, Mons



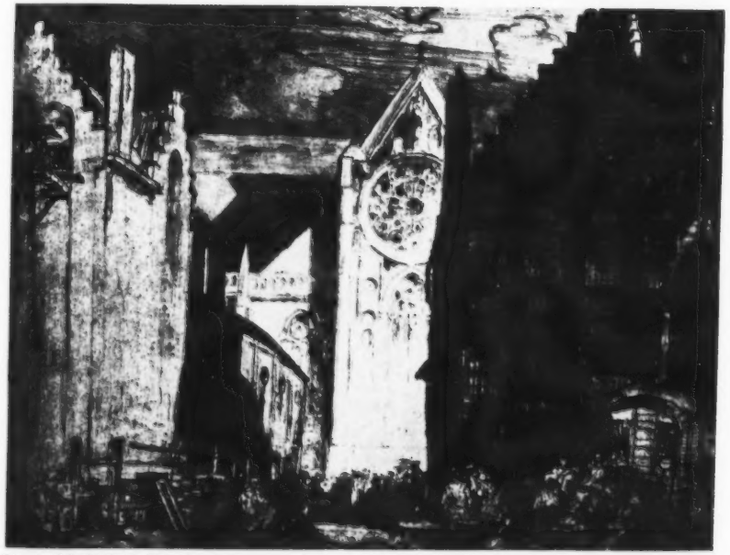
The Mill, Dixmude.



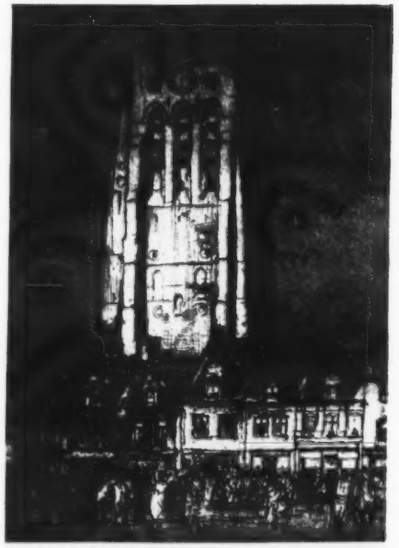
Cathedral St. Walburg, Furnes



Inn of the Parrott, Dixmude

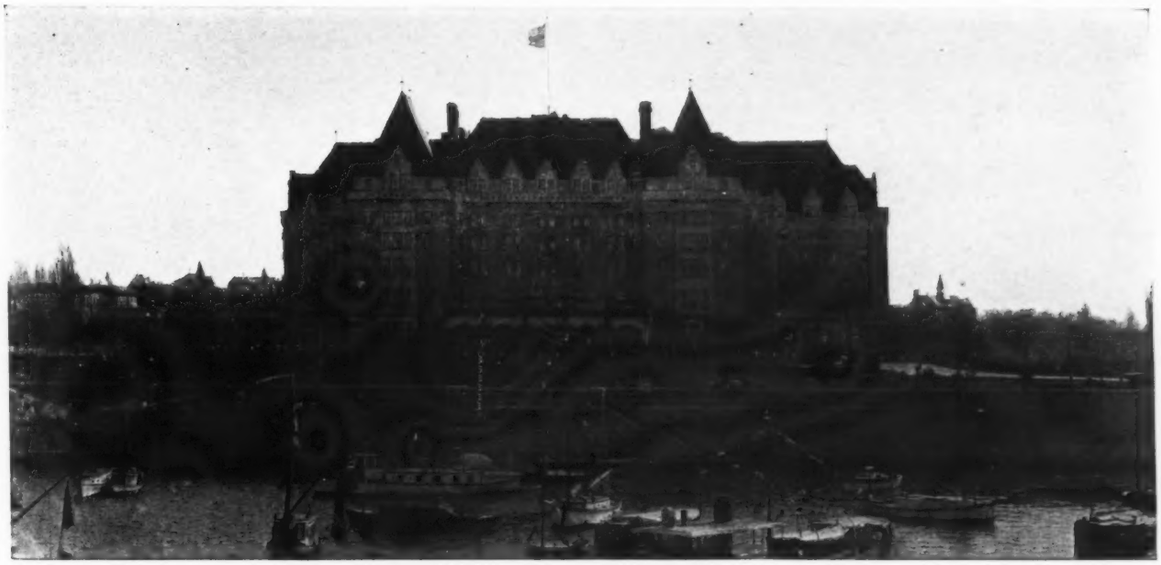


Church of St. Nicholas, Dixmude



Church of St. Nicholas, Furnes.

ETCHINGS BY FRANK BRANGWYN, A. R. A.



Empress Hotel, Victoria, B. C.

General Conditions of the Contract

BY FRANCIS W. GRANT

Last of a series of articles discussing the code adopted by the American Institute of Architects

HIS failure so to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other contractor's work after the execution of his work.

To insure the proper execution of his subsequent work, the Contractor shall measure work already in place and shall at once report to the Architect any discrepancy between the executed work and the drawings.

This clause contemplates the letting of separate contracts and should be considerably modified and abbreviated if work be let as one entire contract.

Article 42. ASSIGNMENT. Neither party to the contract shall assign the contract without the written consent of the other, nor shall the Contractor assign any moneys due or to become due to him hereunder, without the previous written consent of the Owner.

There is no good purpose served in forbidding that the contractor shall assign money due or to become due him, and this provision would probably be held invalid.

Article 43. SUB-CONTRACTS. The Contractor shall notify the Architect in writing of the names of sub-contractors proposed for the principal parts of the work and for such others as the Architect may direct and shall not employ any that the Architect may within a reasonable time object to as incompetent or unfit. The Contractor may in his discretion or shall, if so required, submit with his proposal, a list of sub-contractors. If the change of any name on such list is required or permitted after signature of agreement, the contract price shall be increased or diminished by the difference between the two bids.

Vista in Billiard Room, Hotel Vancouver

The Architect shall, on request, furnish to any sub-contractor, wherever practicable, evidence of the amounts certified to on his account.

The Contractor agrees to be fully responsible to the Owner for the acts or omissions of his sub-contractors and of any one employed either directly or indirectly by him or them and this contractual obligation shall be in addition to the liability imposed by law upon the Contractor for bodily injuries or death through negligence in the cases covered by Article 19 thereof.

Nothing contained in the Contract Documents shall create any contractual relation between any sub-contractor and the Owner.

Except the last two paragraphs, this clause is unfair and not a proper exercise of architectural function.

Article 44. RELATIONS OF CONTRACTOR AND SUB-CONTRACTOR. The Contractor agrees to bind every sub-contractor and every sub-contractor agrees to be bound by the terms of the General Conditions, Drawings and Specifications, as far as applicable to his work, including the following provisions of this Article, unless spe-

cifically noted to the contrary in a sub-contract approved in writing as adequate by the Owner or Architect.

The sub-contractor agrees:

(a) To be bound to the Contractor by the terms of the General Conditions, Drawings and Specifications and to assume toward him all the obligations and responsibilities that he, by those documents, assumes toward the Owner.

(b) To submit to the Contractor applications for payment in such reasonable time as to enable the Contractor to apply for payment under Article 26 of the General Conditions.

(c) To make all claims for extras, for extensions of time and for damages for delays or otherwise, to the Contractor in the manner provided in the General Conditions for like claims by the Contractor upon the Owner, except that the time for making claims for extra cost as under Article 25 of the General Conditions is one week.

The Contractor agrees:

(d) To be bound to the sub-contractor by all the obligations that the Owner assumes to the Contractor under the General Conditions, Drawings and Specifications and by all the provisions thereof affording remedies and redress to the Contractor from the Owner.

Chateau Frontenac, Quebec

(e) To pay the sub-contractor, upon the issuance of certificates, if issued under the schedule of values described in Article 26 of the General Conditions, the amount allowed to the Contractor on account of the sub-contractor's work to the extent of the sub-contractor's interest therein.

(f) To pay the sub-contractor, upon the issuance of certificates, if issued otherwise than as in (e), so that at all times his total payments shall be as large in proportion to the value of the work done by him as the total amount certified to the Contractor is to the value of his work done.

(g) To pay the sub-contractor to such extent as may be provided by the Contract Documents or the sub-contract, if either of these provides for earlier or larger payments than the above.

(h) To pay the sub-contractor on demand for his work or materials as far as executed and fixed in place, less the retained percentage, at the time the certificate should issue, even though the Architect fails to issue it for any cause not the fault of the sub-contractor.

Chateau Lake Louise, Laggan

(j) To pay the sub-contractor a just share of any fire insurance money received by him, the Contractor, under Article 21 of the General Conditions.

(k) To make no demand for liquidated damages or penalty for delay in any sum in excess of such amount as may be specifically named in the sub-contract.

(l) That no claim for services rendered or materials furnished by the Contractor to the sub-contractor shall be valid unless written notice thereof is given by the Contractor to the sub-contractor during the first ten days of the calendar month following that in which the claim originated.

(m) To give the sub-contractor an opportunity to be present and to submit evidence in any arbitration involving his rights.

(n) To name as arbitrator, under Article 45 of the General Conditions, the person nominated by the sub-contractor, if the sole cause of dispute is the work, materials, rights or responsibilities of the sub-contractor; or, if of the sub-contractor and any other sub-contractor jointly, to name as such arbitrator the person upon whom they agree.

The Contractor and sub-contractor agree that:

(o) In the matter of arbitration, their rights and obligations and all procedure shall be analogous to those set forth in Article 45 of the General Conditions.

Nothing in this Article shall create any obligation on the part of the Owner to pay to or to see to the payment of any sums to any sub-contractor.

The authors of this model code must know that a contract between an owner and a contractor cannot be made to bind others, and the inclusion of a covenant that "the sub-contractor agrees to be bound" is folly. The whole clause is improper as a part of a building contract, though possibly good as mere advice to contractors, sub-contractors, and material men. The owner is treading on dangerous ground when he attempts to meddle in the affairs of the contractor to the extent that this clause and several other clauses of this model code contemplate.

Article 45. ARBITRATION. Subject to the provisions of Article 10, all questions in dispute under this contract shall be submitted to arbitration at the choice of either party to the dispute.

The general procedure shall conform to the laws of the State in which the work lies, and wherever permitted by law the decision of the arbitrators may be filed in court to carry it into effect. The demand for arbitration shall be filed in writing with the Architect, in the case of an appeal from his decision, within ten days of its receipt, and in any other case within a reasonable time after cause thereof, and in no case later than the time of final payment, except as to questions arising under Article 16. If the Architect fails to make a decision within a reasonable time, an appeal to arbitration may be taken as if his decision had been rendered against the party appealing.

The parties may agree upon one arbitrator; otherwise there shall be three, one named in writing by each party and the third chosen by these two arbitrators, or, if they fail to select a third within ten days, he shall be chosen by the presiding officer of the nearest Bar Association. Should the party demanding arbitration fail to name an arbitrator within ten days of his demand, his right to arbitration shall lapse. Should the other party fail to choose an arbitrator within such ten days, the Architect shall appoint such arbitrator. Should either party refuse or neglect to supply the arbitrators with any papers or information demanded in writing, the arbitrators are empowered by both parties to take ex parte proceedings.

The arbitrators shall act with promptness. The decision of any two shall be binding on all parties to the dispute. The decision of the arbitrators upon any question subject to arbitration under this contract shall be a condition precedent to any right of legal action.

The arbitrators, if they deem that the case demands it, are authorized to award to the party whose contention is sustained such sums as they shall deem proper for the time, expense and trouble incident to the appeal and, if the appeal was taken without reasonable cause, damages for delay. The arbitrators shall fix their own compensation, unless otherwise provided by agreement and shall assess the costs and charges of the arbitration upon either or both parties.

The award of the arbitrators must be in writing and, if in writing, shall not be open to objection on account of the form of the proceedings or the award.

The authors of this code seem fully convinced that arbitration by a board of three amateurs is better than arbitration by the courts and provide for such course to the exclusion of legal process. The wisdom of this conclusion is debatable. An arbitration clause should be so written that the circumstances of the case and the judgment of the principals may, at the time disputes arise, determine which method of arbitration shall be resorted to. No criticism can be made of the clause except as to this exclusive feature.

Royal Alexandra Hotel, Winnipeg

HOTEL VANCOUVER. *Concluded from page 86.*

The terrazzo floors are of gray color with a light sprinkling of yellow and red chips. The mosaic cube strips are pink Tennessee. The dado is composed of Belgian black marble base, chair rail and corners to principal piers, with panels of red Numidian, with three-inch borders of Tinos green marble.

The *degagement* is paneled above the marble dado in quartered Japanese oak, in which the medulary rays or "flowerings" are fine and small. The entablature and balustrade above same are of the same material. The carving of the soffits of beams is applied, but the frieze, bed-mould and consoles are carved in the solid. The ornamented vaulted ceiling is of fibrous plaster on metal lath. All ornament was cast or carved from models made by the writer and Mr. Victor André.

The Algonquin, St. Andrews, N. B

The ball room dado has a base of black and gold marble, the dado and other wood finish being of Siberian oak. The balcony railings are of bronze-plated iron. Partitions glazed with plate glass separate this room from the lobbies and *degagement;* the solid partition on west side is treated similarly to the east side, but the glazing is done with mirrors. The ordinary entrances to the ball room are from the *degagement,* and the raised foyer number two, from which it is separated by a balustrade. The walls of ball room and lobbies are of painted hard plaster, with cornices run in plaster of Paris with cast ornament. The lobbies are painted with undercoats of raw sienna stippled with raw umber.

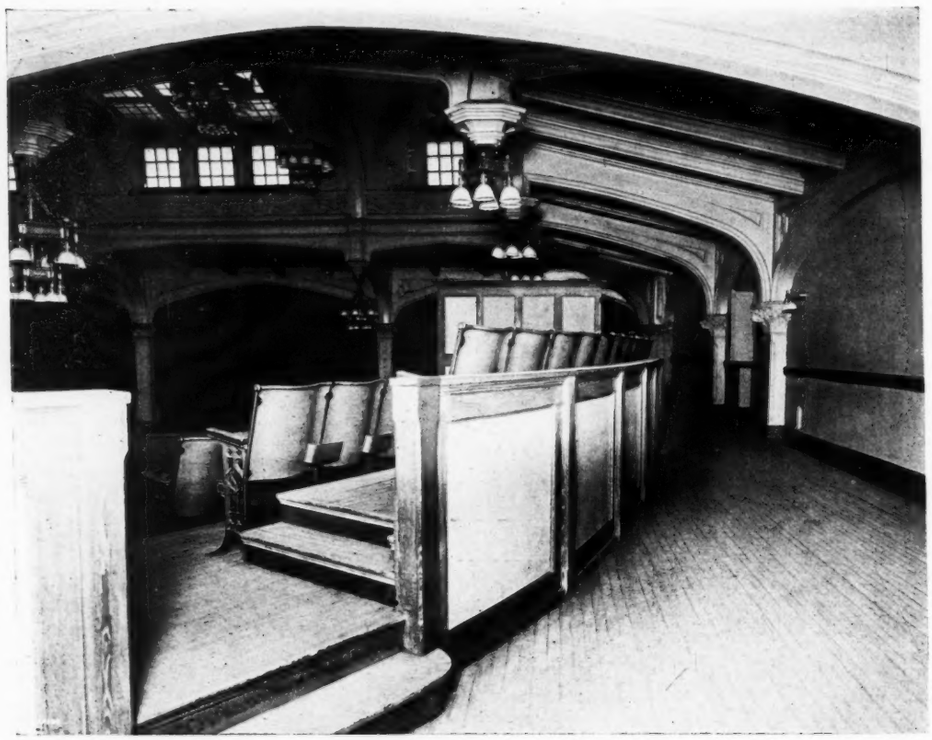
The ball room is decorated with painted ornament in gray color over a body color of raw umber; its ceiling light is of white rippled glass with a border of stained glass in tones of amber and green. The balustrades, balcony railings and grill to musicians' gallery are of bronze-plated cast iron. The electroliers are of gilt bronze and crystal. The spring dancing floor, of maple with oak and marble borders, is sixty-six by ninety-six feet. The sitting-out space adds twenty by sixty-six feet when the room is used for banquets or assembly.

The floors of the foyers are similar to those of the lobbies and *degagement.* The walls of foyer Number One are paneled in mahogany and silk tapestry; the partitions along the south side are glazed with mirrors. Private dining room Number One is finished with mahogany woodwork, the walls decorated in tones of blue and the windows glazed with stained glass designed by Mr. George Greene, of Shields, Pa. The ceiling is of ornamental plaster of "cream color." The foyer and private dining room Number Two have oak woodwork, and the ornamental ceilings and other plasterwork follow the general tone of the ball room. The gray-brown tone employed generally throughout the lobbies is carried in a lighter shade in the background color of the elliptically planned tea room. This is surcharged with a stenciled decoration, which repeats the pattern and color of the bronze grills in the doors, which are used to shut it off from the *degagement* when the tea room is used for private functions. Moulded oak stiles and rails have been used to form panels and a dado to the walls; the ornament in the domed ceiling is gilded in old gold; the ceiling light is executed in Flemish amber glass. The columns and mantelpiece are of "Pocahontas" Alabama marble. The base is of Belgian black. The effect of the room will be greatly improved when a suitable picture is obtained to fill the space in the overmantel.

The advent of the war, and the requisitioning of the company's ships for transport of troops and munitions, caused a general curtailment of expenses. In view of the anticipated reduction of tourist travel, only "standard" furnishings and carpets have been supplied, but these, and some of the unsightly electric fixtures, will, no doubt, receive proper attention and substitution with the return of normally prosperous conditions. All ornamental painting was made from stencils and a model unit painting and all models for terra cotta and ironwork made under personal direction and full-size details by the architect.

E. N.:—In the construction of hotels, the Canadian Pacific Railway has been a pioneer, not only in time, but also in standard of equipment and service. The growth in its mileage, equipment and earnings is coincident with the development of Canada, and a great deal of Canada's development has been brought about by the opening of the railway and the extension of its lines. The "Dominion of Canada" would have been impossible, as it stands today, without the Canadian Pacific.

Asbestos Material for Fire Protection.



Theatre of Washington Irving High School, New York City. (Asbestos panels and side of stereoptican booth)

being superimposed until the desired thickness is obtained. This method of fabrication insures uniform distribution of the asbestos fiber throughout the mass, and also that the fibers will lie in planes parallel to that of the sheet, so that their tensile strength can be used to the greatest advantage in reinforcing the cement.

The material is then subjected to very high pressure in order to more thoroughly impress the asbestos fibers into the cement matrix and also to drive out excess water and prevent voids and fissures. After the setting of the cement and proper ageing, the material thereupon becomes exceedingly dense, tough and resilient, and its strength improves with age.

It is placed on the market in three forms, all adapted for building purposes. Perhaps the most widely used are the small, flat plates or shingles, which are made in three colors: natural cement gray, Indian red or tile, and blue-black or slate, and three

(Continued on page 126)

AMBLER Asbestos Building Materials are absolutely non-combustible for the reason that they contain no combustible ingredients. The body or bulk is Portland cement concrete, consisting of hydrated silicates and aluminates of calcium, while the bonding material, asbestos fiber, is a hydrated silicate of magnesia. None of these substances can take up more oxygen, and all of them are good heat and electrical insulators and can withstand quite high temperatures.

In the process of manufacture, the Portland cement and the separated asbestos fibers are thoroughly mixed together in a beating engine in the presence of an excess of water with the purpose of insuring that each individual asbestos fiber will be well coated with colloidal cement and that plenty of water will be provided for the hydration of the latter.

Subsequently the glue-like mass is taken up in thin sheets in a modified paper board machine, the sheets

Public School, Brooklin, New York. (Asbestos Building Lumber Panels in Boys' Toilets)

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THE ARCHITECT

VOL. XII. SAN FRANCISCO, AUGUST, 1916 NO. 2

Editorial.

FORCE of habit is apparently one of the strongest compelling influences. Let business take a certain trend for a few seasons and the majority of people will take it for granted that the resulting conditions are a necessity and must naturally exist.

This is the state of opinion in certain quarters at the present time in connection with building activities during the fall and part of the winter season. In general, building drops off.

While this is not a necessity, it is a fact that by taking the "dull season" for granted, the buyer of building materials has accustomed himself to do season buying instead of distributing his expenditures over a period of twelve months. It has been made easy for him to do his buying during a short period. Because of this concentrated expenditure he has not taken advantage of the lower prices of material and labor which exist in the winter time.

Building is today, however, an all-year-round proposition. Comparatively few of the big builders lay up a job on account of cold weather if they can by any means induce the owner to go ahead with the plans.

A certain Eastern manufacturer has inaugurated a campaign for more winter building and has communicated with architects and manufacturers all over this country. Architects were asked their opinion regarding the feasibility of doing away with the "dull season," if conditions were made right—the conditions to be in the way of unusual inducements in the way of price, shipments and service between November first and April first, and in addition, special sales and advertising campaigns setting forth the advantages of building in the winter time. The replies received indicated that architects are as anxious for more winter building as are building supply manufacturers. The expressed opinion of the architects showed the theory correct that the winter "dull season" is mostly a matter of tradition.

Many architects stated that this tradition could be overcome if everybody, architects, building trade press and manufacturers worked together. Letters received from building material manufacturers prove their interest in such a campaign. While all such manufacturers, as in the case of some architects, did not agree that building could be stimulated in the winter time, the replies were, however, in complete accord with such a campaign.

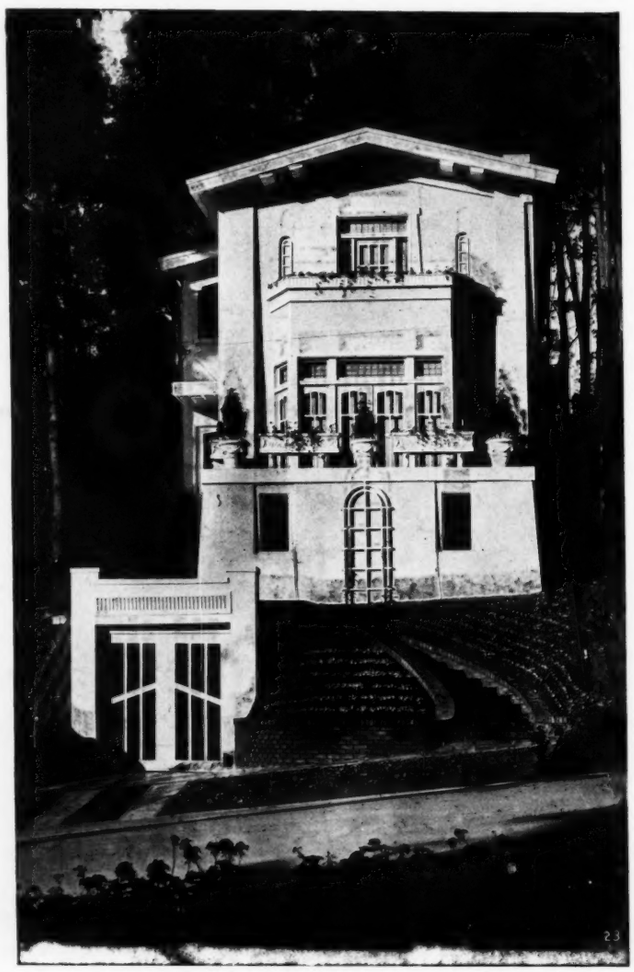
The Detroit Steel Products Company is a leader in this movement and has secured the co-operation of many building supply firms representing all lines. A concerted action will be made to interest architects, owners and all persons engaged in the building industry for a more uniform building activity.

Certain it is that any work directed along this line will reflect to the credit and betterment of all building conditions. There is little question but what a properly conducted campaign directed into the right channels would release considerable business during the winter months that might otherwise hold over until spring. Certainly there is no good reason why such building operations cannot be carried out to advantage throughout the winter months.

Strange to say, even in California, where climatic conditions are altogether favorable to such work, there is, nevertheless, considerable cognizance of a so-called "dull season" during the winter months. A movement for more winter building in California and other Coast States would prove advantageous to all persons engaged or allied with the building industry.

It is to be hoped that this movement gains impetus. A general effort of nation-wide scope will operate in marked degree for the complete elimination of a false custom that undoubtedly has hindered the full flow of business in many communities. We can all help, at least, by forgetting the term "dull season."

Preponderance of opinion of all interested classes would show that building is not entirely a seasonal business, and as time goes on will become less and less so.



Home in Forest Hill Park, San Francisco

Beautiful Atlas-White Effects

The Northwestern Military Academy, Lake Geneva, Wis., is constructed of Hydro-Stone Blocks. Each block is faced with a mixture of micaspar, white Tuckahoe, (N. Y.) marble and Atlas-White Non-Staining Portland Cement, producing a beautiful light granite effect in harmony with the design of the building.

Blocks, artificial stone and stucco made with Atlas-White---either pure white or mixed with color aggregates---afford unlimited opportunities for beautiful effects at comparatively low cost.

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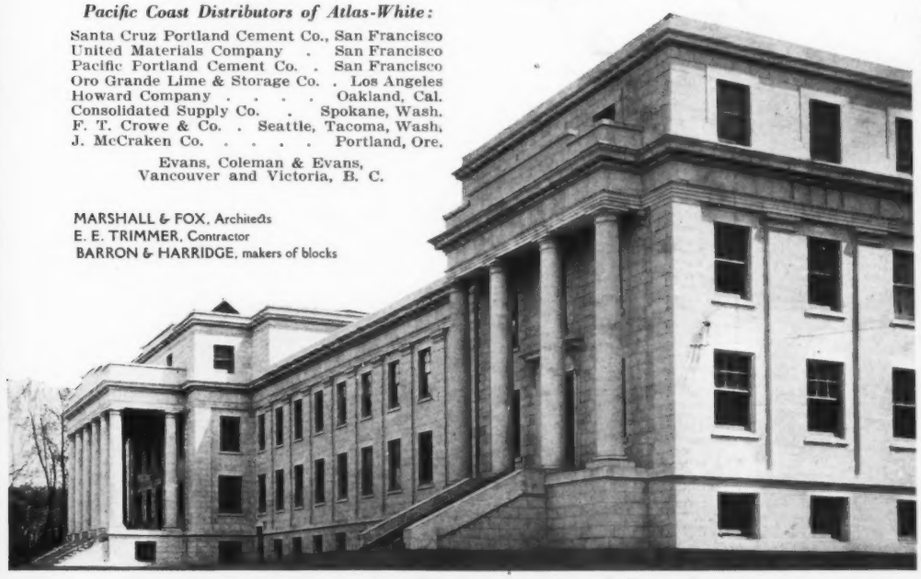
Evans, Coleman & Evans,
Vancouver and Victoria, B. C.

MARSHALL & FOX, Architects
E. E. TRIMMER, Contractor
BARRON & HARRIDGE, makers of blocks



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Send me information about Atlas-White and your Monograph on "Early Stucco Houses in America" containing a guide to Stucco Specifications.

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Current Notes and Comment.

THE oval ceiling light in the C. P. R. Hotel Vancouver, Vancouver, B. C., illustrated in this issue, was built and installed after the plaster line had been completely finished by the Canadian Allis-Chalmers, Limited. The light was a difficult piece of work to construct, owing to the plaster not being finished to a true ellipse, but the work was so well conducted in the company's shops that it went in place without any hitch and no alteration or damage to the plaster was necessary or incurred. The dimension of the ironwork is 60 feet by 36 feet.

Seventy-two of the large cast-iron window frames were installed by the Canadian Allis-Chalmers, Limited. Most of these were very large, three stories in height and correspondingly wide. These frames were manufactured in accordance with detailed sizes and put in place after the brickwork had been completed without requiring any cuts or alterations. This company also manufactured a large number of bronze-plated ventilating grills, also the cast-iron, bronze-plated balcony railings in the ball room, and bannisters to staircase and railings in foyer. The total contracts of this company reached a value approximating $60,000.00.

E. C. McDougall, with offices in Vancouver, Seattle and Portland, executed all the plain and ornamental plastering in the Hotel Vancouver. A notable feature of the work is seen in the corridor and banquet halls. The modeling and casting of the plaster ornaments was done on the job by skilled artists. The extent of this plastering job exceeds $200,000.00, it being one of the largest contracts ever let in Canada.

ASBESTOS MATERIAL FOR FIRE PROTECTION.

Concluded from page 122.

designs, the straight or American style, the French or diagonal pattern with honeycomb effect, and the diagonal pattern with diamond effect. The shingles are much lighter than tile or slate, and weigh only a little more than wooden shingles (not so much when wet) and can be applied over roofing paper to any reasonably well matched wooden sheathing having a slope not less than four inches to the foot. Each shingle is held by two sharp-pointed nails, with the addition of a so-called storm nail at the apex for the diagonal patterns.

Roofs covered with these shingles are protected against flying brands and radiation and cannot take or communicate fire.

Larger sheets or plates, known as Ambler Asbestos Building Lumber, are made measuring 48 inches by 96 inches, thickness varying from ⅛ to 1 inch, and are widely used for ceilings, partitions, wainscoting, floors, shelves, closets, table tops, chutes, linings for elevator shafts, wire conduits, electrical switch compartments, etc. Other fireproofing uses are conduits for steam and hot water pipes, drawers and bins, dry rooms, fireplaces, flues to carry off fumes, greenhouse benches, hoods over ranges or other apparatus, lockers, panels behind radiators, shelves, bins, shutters, smoke hoods, telephone booths, waste boxes, work table tops, etc.

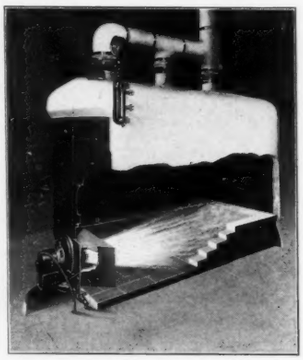
It is also used in the construction of malt drying kilns, where large volumes of moisture are driven off from the malt and have a tendency to condense on the walls of the kiln. It presents a hard, smooth surface that resists deterioration from heat and dampness, and besides, is a thermal insulator, thus reducing the condensation. This insulating effect can be increased by first covering the walls of the kiln by one or two inch separators and then nailing the asbestos building lumber to these strips, leaving a dead air insulating space between. By reason of the exact dimensions and perfect straightness of the edges the material fits together closely without crevices for dust or grain.

Asbestos Building Lumber is specified by the laws of Massachusetts, Connecticut, New York, Pennsylvania, and other States, as a material for moving picture booths, while Ohio and Indiana specify it as an alternate with sheet iron, giving preference to Asbestos Building Lumber.

As the Ambler Asbestos Building Materials are not brittle and do not easily fracture, chip or split into layers, they can readily be sawed, filed, drilled, punched or cut, and nails can be driven through them, and the flat lumber can be used for a great variety of purposes, as in the manufacture of electrical and other devices, such as electrical and gas stoves, heaters for passenger cars, fireless cookers, table tops, lightning arresters, linings for incubators, underfloors for street cars, heat insulating slate for cooking vessels, electrical flatiron stands, waste boxes and baskets, coal houses, etc. In general, it is advantageously used to replace slate, marble, hardwood, fiber, enamel, iron and steel, terra cotta, tile, etc., because of its lower cost, less weight and greater durability.

Due to the fact that painting or frequent renewal is not required, it gives the additional advantages of fireproofness.

The Ambler Asbestos Building Products have been tested and approved as fire-retarding materials by the American Society for Fire Prevention, and buildings covered with them secure substantial reductions in fire insurance rates, as compared with buildings covered with inflammable, semi-inflammable or heat-conducting coverings.



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